BEFORE THE ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

In the Matter of the Thermal Power
Plant Site Certificate for the Coyote Springs Cogeneration Project
Request for Amendment No. 2

FINAL ORDER

Summary
This order approves the amendment request subject to conditions.

A. Summary and Background of the Request for Amendment

On September 16, 1994, the Energy Facility Siting Council (Council, or EFSC) issued an Energy Facility Site Certificate to the Portland General Electric Company (PGE) for a natural gas-fired cogeneration facility and related and supporting facilities (collectively, the facility) located in the Port of Morrow Industrial Park in Boardman, Oregon. The facility is known as the Coyote Springs Cogeneration Project (CSCP).

The Council granted PGE a first amendment to the CSCP site certificate on December 6, 1996. That amendment incorporated explicitly all conditions, which had originally been incorporated by reference, and specified that the Council's current rules for amending site certificates apply to future amendments of the CSCP site certificate.

CSCP is a two unit plant with a total capacity of 462 megawatts. The first unit is in operation. PGE has notified the Council that it has begun negotiations with the turbine supplier for delivery of the second unit turbine.

The current site certificate for CSCP allows PGE to construct two 680,000 gallon fuel oil tanks at the facility. PGE has constructed one tank. The site certificate does not allow PGE to fill the tanks with oil or to use oil for power generation, hence this request.

PGE requests that the Council amend the CSCP site certificate to allow it to use #2 low-sulfur distillate oil for back-up fuel for the natural gas-fired combustion turbines at Coyote Springs. PGE proposes to limit its use of distillate as back-up fuel in accordance both with the limits of an amended Air Contaminant Discharge Permit (ACDP) (under review by the Oregon Department of Environmental Quality (DEQ)) and the Council's rule OAR 345-01-010(33). The Council's rule provides that alternate fuel use in a natural gas-fired facility shall not exceed ten percent of the expected fuel use in British thermal units, higher heating value, on an annual basis.
In awarding the site certificate for CSCP, the Council granted PGE an exemption from the need for facility standard because CSCP was a natural gas-fired generating facility that met the criteria for the exemption. OAR 345-23-010 (2) (1994). Therefore, PGE must continue to operate the facility within the bounds of the Council’s definition of a natural gas-fired facility.

In this document, all references to the “original order” are to the Final Order in the Matter of the Application for Site Certificate of Portland General Electric Company for the Coyote Springs Cogeneration Project, which the Council issued September 16, 1994.

B. Procedural History

Office of Energy Review Steps

PGE Request. PGE submitted its request for amendment number 2 to the Council on December 19, 1996.

Review by Other Agencies, Local Governments and Tribes. The Oregon Office of Energy (OOE), pursuant to OAR 345-27-070(1), identified potentially affected agencies, local governments and tribes and asked them to review the request for amendment. OOE mailed a copy of the amendment request along with a review report form on December 19, 1996 to those agencies, local governments and tribes and asked them to reply by January 17, 1997.

The reviewing agencies, local governments and tribes are the Oregon Department of Geology and Mineral Industries (DOGAMI); the Oregon Department of Fish and Wildlife (ODFW); the Division of State Lands (DSL); the Department of Agriculture (ODA); the Department of Land Conservation and Development (DLCD); the Water Resources Department (WRD); the Economic Development Department (EDD); the Department of Parks and Recreation (ODPR); the State Historic Preservation Office (SHPO); the Department of Transportation (ODOT), the Department of Environmental Quality (DEQ), the Office of State Fire Marshall, the Oregon Public Utilities Commission (OPUC), the Building Codes Division (BCD), the Department of Forestry (ODF), the Northwest Power Planning Council (NWPPC), the Cities of Boardman and Irrigon, Morrow County, Port of Morrow, the Confederated Tribes of Umatilla, and the Confederated Tribes of Warm Springs.

No agency, local government or tribe objected to the request for amendment or offered conditions for the site certificate. DEQ and ODFW provided detailed comments, which are discussed below. In general, their comments concurred that there would be no significant potential impacts on protected areas and fish and wildlife.

Initial Public Notice. On December 20, 1996, OOE mailed a notice of the PGE request for amendment to all persons on the Council’s general mailing list and persons on the Council’s mailing list for the initial CSCP site certificate proceeding, pursuant to
OAR 345-27-070(1). The notice asked for initial comments to OOE by January 17, 1997.
No one requested a copy of the request for amendment and no one commented to OOE during the comment period.


Notice. When OOE issued the proposed order, it mailed notice of the proposed order to the Council’s general mailing list and persons on the Council’s mailing list for the initial CSCP site certificate proceeding, pursuant to OAR 345-27-070(2).

Comments. The comment period closed at 5:00 p.m. on February 21, 1997.
OOE received no written comments and no requests for a contested case on the proposed order during the 30-day comment period pursuant to OAR 345-27-070(3).

Final Order. Following the close of the public comment period, OOE prepared a final order for the Council’s consideration at its March 6, 1997 meeting.

Notice of Hearing on Final Order. OOE provided notice of the hearing on the final order in the agenda for the Council’s March 6 and 7, 1997 meeting, which it mailed on February 26, 1997.

Council Review Steps


Public Hearing on Final Order. The Council conducted a public hearing on PGE’s request for amendment on March 6, 1997 pursuant to OAR 345-27-070(5).

C. General Findings of Fact Related to the Request for Amendment

PGE anticipated in the early design of Coyote Springs that the combustion turbines would be capable of using both natural gas and distillate oil for fuel. Prior to PGE submitting its application for a site certificate to the Council, PGE learned from DEQ that it would be necessary to collect one full year of meteorological and air quality data from a monitoring station near CSCP. At that time, PGE decided to go forward with its application for a site certificate, but to delay requesting the ability to store and use oil since it could not provide the Council with the yet-to-be determined limits that DEQ would place on the emissions while firing on oil.

PGE erected a DEQ-approved ambient monitoring station, which included a meteorological tower. PGE completed gathering data in 1995. It then completed new air modeling and submitted a request to DEQ for an amendment to its ACDP.
In the ACDP, total base-load hours of operation for the facility are not restricted, except as a result of the restriction of emissions. If #2 low sulfur distillate fuel is approved as a back-up fuel, the pollutant that is most restrictive is oxides of sulfur (SOx). Based on current modeling results, the annual operating limit in the ACDP is likely to be 39.4 tons of SOx. That rate allows total annual low-sulfur, #2 distillate fuel consumption of approximately 8,197,000 gallons, not exceeding 27,598 gallons per hour. This limit converts to different numbers of maximum hours of operating time using #2 distillate fuel depending on whether PGE is operating one or two generating units and on local climate conditions.

There are conditions where the ACDP would not limit the facility’s alternative fuel use to less than 10 percent of the expected fuel use on a Btu basis, as required by Council rules. However, PGE must abide by the most restrictive limit of the two standards for any set of conditions.

**System Description**

The physical equipment necessary to use distillate fuel consists of four elements:

1) a fuel oil unloading station; providing hose connections, off-loading pumps, associated piping and electrical power, and controls for unloading of tanker trucks into the fuel oil holding tanks;

2) two 680,000 gallon-capacity fuel oil holding tanks to provide on-site fuel, which provides an inventory for approximately 54 hours use (one gas turbine will use about 12,562 gallons per hour of fuel at full power);

3) a diked, oil-impermeable area with foam fire suppression system for each of the fuel oil tanks; and,

4) a fuel pumping system, providing pumps, associated piping, electrical power, and controls for transporting the oil into the fuel oil feed system of the turbines.

All of the above equipment will be within the boundary limits of the existing site. PGE will design the truck dock at the east side of the south-east corner of the site for ease of highway access. It will be adjacent to the current facility. PGE will own and operate the truck loading dock. It will lease the land from the Port of Morrow, which also owns the land on which CSCP is located.

**Operations**

PGE will use #2 low-sulfur distillate fuel oil under the following conditions:

1) commissioning and periodic operational testing; and,
2) periods of natural gas supply interruptions or unavailability of natural gas fuel due to limitations imposed in fuel supply contracts.

The amount of fuel used during distillate fuel operation shall not exceed 10 percent of the expected fuel use in Btu's, higher heating value on an annual basis. Further, the total operating hours for these conditions shall not exceed the emission limits in the ACDP.

D. Amendment to Site Certificate

Specifically, PGE requests that the words "with oil-firing back-up" be inserted after the words "natural gas-fired," along with reference to OAR 345-01-010 (33) on page one, line 25 of the Thermal Power Plant Site Certificate for the Coyote Springs Cogeneration Project. The proposed amendment is shown in the following site certificate language in the underlined text, along with a change to reflect that the facility in now within the city limits of Boardman:

"I. SITE CERTIFICATION

A. To the extent authorized by State law and subject to those warranties and conditions set forth herein, the State approves and authorizes for construction, operation and retirement by PGE of a natural gas-fired combustion turbine energy facility with oil firing back-up (as defined in OAR 345-01-010(33)), together with related or supporting facilities in Boardman, Oregon, in the manner described in PGE’s application for site certificate..."

OOE recommended to the Council that it approve PGE’s request for amendment. OOE also proposed other changes to the site certificate that it recommended the Council adopt to implement the primary intent of the amendment.

Condition #1.
The CSCP shall not exceed permitted emission levels, total emissions or the allowable amount of distillate fuel use stated in its ACDP (amended for distillate fuel burning). The CSCP's use of distillate fuel in its combustion turbines in any year shall not exceed an amount of 10 percent of the expected total fuel use, on a Btu higher heating value basis.

E. Compliance with Council Standards

OAR 345-27-070(6) sets forth the Council's general standard for review of a request by a site certificate holder for an amendment:
“In evaluating a request for an amendment under this rule, the Council shall limit its consideration to the effects which may be produced by the proposed change or addition to the site or facility described in the request for amendment. In considering those effects, the Council shall apply state statutes, administrative rules, and local government ordinances in effect on the date the amended Site Certificate is executed.”

A review of the standards and the mitigation measures contained in the site certificate that are affected by distillate fuel-firing by the combustion turbines at the Coyote Springs facility follows.

**Standards Relating to the Applicant**

1. **Organizational, Managerial and Technical Expertise, OAR 345-22-010**
   
a. **Applicant Qualification and Capability, OAR 345-22-010(1)**
   To meet this standard, the Council must find that “the applicant has the organizational, managerial and technical expertise to construct and operate the facility. To conclude that the applicant has the organizational, managerial and technical expertise to construct and operate the proposed facility, the Council must determine that the applicant has a reasonable probability of successful construction and operation of the facility considering the experience of the applicant, the availability of technical expertise to the applicant, and, if the applicant has constructed or operated other facilities, the past performance of the applicant, including but not limited to the number and severity of regulatory citations, in constructing or operating a facility, type of equipment, or process similar to the proposed facility.”

   **Discussion.** In the original order for CSCP, the Council concluded on page 31 that PGE has a reasonable probability of successful construction and operation of the facility and that it possesses the required organizational, managerial, and technical expertise to construct and operate the proposed facilities. Burning distillate fuel as a back-up fuel is a common practice for natural gas-fired facilities. While there are specific standards and procedures that relate to storing and burning distillate fuel, there is nothing unique about using distillate fuel for back-up that should tax PGE’s managerial and technical expertise. Moreover, PGE has successfully used distillate fuel at its Beaver combustion generating facility.

   **Conclusion.** For these reasons, the Council finds that PGE has satisfied the requirements of OAR 345-22-010(1).

b. **Third-Party Services and Permits, OAR 345-22-010(2)**
   The Council amended the standard for organizational, managerial and technical expertise—third party services and permits effective November 10, 1994. The standard requires that:
"If the applicant will not itself obtain any state or local government permit or approval for which the Council would ordinarily determine compliance with applicable standards, but will rely on a permit or approval issued to a third party, the Council must determine that the named third party has, or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant has, or has a reasonable likelihood of entering into, a contractual or other arrangement with the third party for access to the resource or service secured by that permit or approval."

**Discussion.** With two exceptions, the permits and approvals addressed in the amendment request will be obtained directly by PGE. The two exceptions are the required permits for water supply and waste water discharge.

**i. Water Services**

The amendment requires that the Council determine that a third party has obtained, or has a reasonable likelihood of obtaining any required local permits, as well as the previously required state permits. The Council’s findings with respect to third party services and permits relating to water services on page 34 of the original order are still applicable and will not be changed.

The additional water necessary for water injection for control of NOx during distillate fuel-firing is indicated in columns 3 and 5, point number 5 of Table B3, which PGE provided with the application for site certificate (ASC) dated September 16, 1993. This table indicates a flow of 544 gpm for the instantaneous requirement for two gas turbines operating on distillate fuel in winter conditions. The most conservative view for the number of turbine operating hours per year for a winter low average of 20°F is 719 hours. Under these conditions, the facility would use an additional 11.73 million gallons of water, which is an annualized average increase of 22 gpm.¹

In 1994, the Water Resources Department approved a change in use to "municipal" service of water from Port Well No. 3 and Carlson Sumps 1 and 2. In addition in 1995, the Port of Morrow and the City of Boardman executed an Intergovernmental Agreement on Industrial Water and Other Services wherein the City agreed to sell, and the Port has agreed to purchase, fresh water from the City’s system beginning January 1, 1996. PGE can use up to 1,000 gpm of that supply. The agreement is documented in Amendment 1 to the Services Agreement between the Port of Morrow and Portland General Electric.

¹ In its request for amendment, page 4, PGE calculates the annualized average increase to be 24 gpm, based on its projected 93 percent capacity factor for the plant. However, it is more appropriate to base the calculation on a 100 percent capacity factor to account for the maximum possible use, which results in an estimate of 22 gpm. Both amounts, 22 gpm and 24 gpm, round to 0.05 CFS.
In PGE’s ASC Appendices, Table 1 of Appendix O is a "Summary of Port-Owned Permitted Water Resources." The Port of Morrow’s and the City of Boardman’s legally permitted sources can supply CSCP 2,715 gpm on an annual basis with about 938 gpm excess capacity, available on an instantaneous, as well as annual, basis (Exhibit C of PGE’s request for amendment). This excess capacity allows for the Port and the City to meet CSCP’s instantaneous demand.

The Council finds, therefore, that CSCP will continue to meet the standard relating to third party water supply permits.

ii. Process Wastewater and Domestic Sewage Disposal
Since the water used for NOx control is evaporated during the process, no additional waste water is generated from this source. When burning distillate fuel, the facility will produce less than three gpm annual average of additional waste water since more water purification is necessary to provide the high-quality injection water needed in the combustion turbines. This results in a more frequent “backwash” cleaning of the purification units and a discrete amount of additional waste water discharged through the neutralizing system. Under the most severe use, the backwash of the deionizer beds will occur twice instead of once per month when the plant produces neither water injection nor steam for cogeneration.

The expected operational restrictions of the ACDP on allowed hours of oil-firing should result in an incremental 2.6 gpm annual average increase of this waste water stream, and an overall change from 761 to 764 gpm waste discharge. This is a 0.4 percent increase in liquid waste discharge from the PGE plant to the Port of Morrow’s waste water system, and is less than a 0.1 percent increase in the Port's total effluent system load. The Port of Morrow has stated that the Port considers the proposed increased effluent load to be insignificant. The Council finds that this addition is insignificant and that CSCP will continue to meet the standard for process waste water and domestic sewage disposal.

Conclusion. The Council finds that CSCP will continue to meet the requirements of OAR 345-22-010(2) for third party services and permits.

2. Financial Assurance Standard, OAR 345-22-050
The Council last amended the standard for financial assurance effective November 16, 1995. OAR 345-22-050 requires the Council to find that "the applicant has a reasonable likelihood of obtaining a bond or comparable security, satisfactory to the Council, in an amount adequate to restore the site if the site certificate holder:

(1) Begins but does not complete construction of the facility; or

(2) Permanently closes the facility before establishing a financial mechanism or instrument, satisfactory to the Council, that will assure funds will be available to adequately retire the facility and restore the site to a useful, non-hazardous condition."
The latest amendment added the phrase “to a useful, non-hazardous condition” to OAR 345-22-050(2).

Discussion. In its original order, the Council concluded that PGE “...possess the necessary authority to finance, construct, operate and retire the proposed facility based on the submission of the Applicant.” Burning oil will have no significant impact on PGE’s financial stability or the costs to retire the facility. Therefore, the finding of the original order for CSCP that PGE “has reasonable assurance of obtaining the funds necessary to cover the...operating and retirement costs for the design lifetime of the facility...” will not change.

Conclusion. The Council finds that PGE will continue to meet the financial assurance standard, OAR 345-22-050.

Standards Relating to the Site and Structure

3. Structural Standard, OAR 345-22-020

The Council last amended the structural standard effective November 16, 1995. The standard requires the Council to find:

“(1) The applicant, through appropriate site specific study, has adequately characterized the site in terms of seismic zone and expected ground response during the maximum credible seismic event; and

“(2) The facility can be designed, engineered and constructed adequately to avoid potential dangers to human safety presented by seismic hazards affecting the site, as defined in ORS 455.447(1)(d) and including amplification, that are expected to result from all reasonably probable seismic events.”

Discussion. PGE performed site-specific studies to characterize the site as a condition of the original site certificate. PGE did not perform new site specific studies, but there have been no changes in the characterization of the site since that time. The original condition to design and construct to Building Code Division regulations remains applicable and is met by impact mitigation.

PGE designed and constructed the oil fuel tanks and foundations in accordance with the seismic design that the Building Codes Division specified for the entire Coyote Springs facility (Seismic Zone 2B). Further, PGE densified the location for the fuel oil tanks using deep vibratory compaction to minimize any effects of liquefaction in the event of a maximum credible earthquake at the site. The installation design incorporates the ability for accepting differential settlement in case of a seismic event.
Conclusion. The Council finds that CSCP will continue to meet the structural standard, OAR 345-22-020.

4. Soil Protection Standard, OAR 345-22-022

The Council amended and renumbered the soil protection standard effective November 10, 1994. The standard requires the Council to find “...that the design, construction and operation of the facility, taking into account mitigation, is not likely to result in a significant adverse impact to soils.” At the time the Council issued the original order, the standard required that the facility be designed, constructed, operated, and retired to avoid, to the greatest extent possible, adverse impacts on soils.

Discussion. The design of the fuel oil tanks incorporates a bermed area meeting the holding criteria specified under the federal requirements regarding an “Oil Spill Prevention Control and Countermeasures Plan.” The berm will hold at least 115 percent of the capacity of the oil contained in the largest single tank. PGE’s design goes further by use of an intermediate embankment between the two tank areas that would serve to contain a minor spill to the local tank area, but allow use of both bermed areas for containment of a major spill. PGE lined the entire bermed area with an oil-impervious membrane, which will prevent oil seepage into the ground.

Each tank is 46 feet high with a working level design of 42 feet, 10 inches, and has a 680,000 gallon capacity. There is a 6-inch overflow connection near the top of the tank, which would begin to spill oil at 711,000 gallons. The entire bermed volume will hold more than 782,000 gallons, which is the federal requirement.

Conclusion. The Council finds that CSCP meets the soil protection standard (OAR 345-22-022) by the impact mitigation measures described above.

5. Land Use Standard, OAR 345-22-030(2)(a)

The Council renumbered the land use standard requiring local land use approval effective November 10, 1994, but did not amend it in substance. This standard requires that the facility be in compliance with “the statewide planning goal adopted by the Land Conservation and Development Commission.” OAR 345-22-030(1)

“(2) A proposed facility shall be found in compliance with section (1) of this rule if:

(a) The facility has received local land use approval under the acknowledged comprehensive plan and land use regulations of the affected local government, or...

Discussion. The siting of oil fuel tanks in support of a power generating facility in the Port industrial zone is permitted outright under the City of Boardman’s land use ordinance.
Conclusion. The Council finds that CSCP meets the land use standard, OAR 345-22-030.

Standards Relating to the Impacts of Construction, Operation and Refinement

6. Protected Area Standard, OAR 345-22-040

The Council last amended the protected area standard effective November 16, 1995. This standard prohibits the siting of an energy facility in any of the listed protected areas. OAR 345-22-040(1). The standard permits the siting of a facility outside the listed protected areas so long as the Council finds, "taking into account mitigation, the design, construction and operation of the facility...is not likely to result in significant adverse impact" to any of the listed protected areas. The earlier standard required a finding that a facility "will not" result in significant adverse impacts.

Discussion. The original order identified 14 protected areas within a 20-mile radius of the site. The two closest protected areas are the Umatilla National Wildlife Refuge and the Coyote Springs Wildlife Management Area.

Discussion: Air Contaminants. PGE submitted copies of its air quality modeling analysis reports to DEQ as part of its amendment request. These reports show that the plant's air quality impact should continue to satisfy all federal and DEQ primary and secondary standards for air emissions.

The DEQ analysis of the incremental air emissions that can be expected from distillate fuel use at this power plant does not explicitly model the impact in all protected areas. However, the incremental emissions from the use of distillate fuel are below the Significant Emission Rate (SER) that the DEQ uses to require such detailed analyses. OAR 340-28-110 The DEQ has established an SER to aid in evaluating requested increases in emissions. The DEQ assumes that an increase in emissions that is less than the SER will not have an adverse environmental impact.

In the case of CSCP, the original ACDP models for emissions of particulates, oxides of nitrogen oxides and carbon monoxide were greater than the SER. PGE performed an analysis of the environmental impacts at that time and the Council took that analysis into account in its initial order. Since the use of #2 distillate fuel would alter the results of the previous analysis, DEQ required another analysis using actual meteorological data and the projected emissions while burning distillate fuel. PGE only conducted this analysis for particulates and nitrogen oxide emissions. The emission rates of all criteria pollutant emissions, including sulfur dioxide, nitrogen oxides, particulates, carbon monoxide, and volatile organic compounds were less than the SER. That analysis predicted that the use of distillate fuel would not adversely impact the environment. On February 4, 1997, DEQ gave public notice soliciting comment on its review of the
ACDP. The close of comment period is March 6, 1997. DEQ expects to make a final
decision on PGE’s request for an amended ACDP in March, 1997.

As shown in the annual average modeling results in Table 4-3 on Page 4-5 of
Exhibit A (“Modeling Analysis of the PGE Coyote Springs Power Generation Plant to
Support Air Permit Modification (Backup Oil Firing”), the maximum predicted impact is
0.3 micro grams per cubic meter (µg/m³) for NOx and 0.04 µg/m³ for particulates
(TS/PM₁₀). These results are below the state and federal Significant Air Quality Impact
levels for annual averaging (OAR 340-28-110 (104)), which are 1.0 µg/m³ for NOx and
0.2 µg/m³ for particulates. This means that these predicted plant annual concentrations
are small compared to the state and federal ambient air quality standards, which are
100 µg/m³ for NOx (OAR 340-31-040 (ppm converted to µg/m³)) and 50 µg/m³ for
particulates (OAR 340-31-015).

Current modeling analyzes both the impact due to the facility alone and the
impact of all local sources. These analyses give different results because the maximum
predicted concentration due to local particulate sources (all modeled together) occurred
on a different day and location, compared to the maximum concentration predicted for the
CSCE facility on oil (modeled alone). In the Council’s original order and DEQ’s related
modeling analysis for this facility when operating on natural gas, the maximum predicted
24-hour concentration due to the facility’s particulate emissions was 0.96 µg/m³. This is
compared to the state and federal particulate standard of 150 µg/m³ for the maximum
concentration over a 24-hour period. The new modeling results show that the maximum
air quality particulate matter impact due to CSCE alone when burning distillate fuel
should be 1.9 µg/m³.

When modeling the maximum predicted impact from all local particulate sources,
the contribution due to CSCE when operating on distillate fuel should be only
0.05 µg/m³. The dramatic decrease is due to the use of actual measured meteorological
data for the most recent analysis, compared to using the worst-case meteorology in the
original analysis. In either case, the impact is small.

In its comments on the PGE proposed amendment, ODFW stated that it concurs
with PGE’s conclusion that the satisfaction of DEQ air emission requirements will
adequately address effects on protected areas.

The Council finds that air emissions from the proposed use of distillate fuel at the
facility will not adversely affect any protected areas.

Discussion: Cooling Tower Drift. Cooling tower drift is described as the
amount of unevaporated cooling water entrained in the cooling tower exhaust that escapes
the system to the surrounding atmosphere. The rate of this drift (cooling tower drift rate)
is measured as a percent of the total volume rate of cooling water circulating through the
system. The Coyote Springs circulating water system is designed as a constant-flow

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system, which means that varying output of the Plant, whether firing on oil or gas, does not substantially affect the circulating water flow rate.

The CSCP site certificate contains a condition (V.D.1(4)) that limits the cooling tower drift rate to a 0.002 percent drift. Using a different fuel to fire the gas turbine will not exceed the limiting condition of 0.002 percent drift. (PGE correspondence to OOE staff dated January 13, 1997.) The cooling tower has a drift-elimination system to maintain drift below 0.002 percent at highest cooling load conditions, including that encountered while firing on oil. The highest cooling load conditions will generally occur during the hottest part of the summer, which is the least likely time that firing on oil will occur.

The purpose behind this limitation on drift rate is to minimize carryover of chemicals (mostly salts) dissolved in the cooling tower water, thereby minimizing any affect on surrounding vegetation, waters or wild life. The concentration of solubles in the cooling tower water will not exceed the limitation as stated in the site certificate at V.D.1(4).

PGE does not request a change in the site certificate s condition relating to cooling tower drift. The Council finds that no substantial change in drift rate or its affects will occur because of use of distillate fuel.

**Conclusion.** The Council finds that CSCP will continue to meet the protected areas standard, OAR 345-22-040. It will require PGE obtain an amendment to the CSCP Air Contaminant Discharge Permit that allows it to burn distillate fuel.

**Condition # 2**

PGE shall not use #2 low sulfur distillate fuel oil in its turbines at CSCP prior to receiving an amended Air Contaminant Discharge Permit from the Department of Environmental Quality authorizing it to burn distillate fuel.

7. **Fish and Wildlife Habitat Standard, OAR 345-22-060**

The Council last amended the fish and wildlife habitat standard effective November 16, 1995. For this standard, the Council must find that "the design, construction, operation and retirement of the facility, taking into account mitigation, is consistent with the fish and wildlife mitigation goals and standards of OAR 635-415-030." OAR 635-415-030 describes four categories of habitat in order of their value. The rule then established mitigation goals and corresponding implementation standards for each habitat category.

**Discussion: Air Emissions.** There are minor differences in air emissions that DEQ will study as a part of the application for amendment to the Air Contaminant
Discharge Permit. These are discussed under the protected areas standard above. The modeling shows that there is no significant impact that would require further mitigation.

Discussion: Water Use. The total annual average water demand, when approved by this amendment, will increase from 2,691 gpm (6.00 CFS) to 2,713 gpm\(^2\) (6.05 CFS). The Port of Morrow’s fresh water system will provide the amounts used for CSCP’s deionized water system make-up, which include the previously approved 23 gpm and the incremental 22 gpm requested in this amendment. This Port of Morrow system draws primarily from deep wells drilled into the basalt aquifer, but it has an interconnection to the City of Boardman’s municipal water system. The interconnection allows the Port to furnish some water to food processors on contract from the City’s system.

It is possible that some of the water provided by the City’s system could be directed to Coyote Springs use in deionized water make-up. Conservatively, this could increase the use of the Columbia River water from 6.0 to 6.05 CFS. The original order for the Coyote Springs Site Certificate, page 59, lines 18-21, notes that 6.0 CFS withdrawal affects the Columbia River flow by only 0.003 percent. The potential increase withdrawal caused by this request for amendment of 0.05 CFS is approximately 0.000025 percent, assuming a flow of 200,000 CFS for the Columbia.\(^3\)

In its comments on the proposed amendment, ODFW stated that it concurs with PGE’s conclusion that 0.05 CFS is negligible in terms of any potential impact on fish in the Columbia River through any hydraulic connection of the wells with the river. The Council finds that this increase is insignificant and does not change its conclusions regarding fish and wildlife in its original order for CSCP.

Discussion: Cooling Tower Drift. Cooling tower drift is discussed under the protected area standard.

Conclusion. The Council finds that its conclusion with respect to fish and wildlife on page 56 of the original order will not change and, therefore, that CSCP will continue to meet the fish and wildlife habitat standard, OAR 345-22-060.

8. Threatened and Endangered Species, OAR 345-22-070

The Council amended the threatened and endangered species standard effective November 10, 1994. This standard requires that the Council find that the design, construction, operation and retirement of the facility, taking into account mitigation, be consistent with any applicable conservation program adopted pursuant to ORS 496.172(3) or ORS 564.105(3). If no conservation program applies, the facility must not have the potential to reduce significantly the likelihood of the survival or recovery of any

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\(^2\) See footnote \#1 regarding correction to gpm calculation.

\(^3\) There is a typographical error on page 5 of PGE’s request for amendment that refers to an increase of 0.02 CFS, which PGE then uses to calculate an increase of 0.00001 percent. These data correct those errors, consistent with footnote \# 1.
threatened or endangered species listed under ORS 496.172(2) or ORS 564.105(2). The standard in place at the time Council issued the original order required a finding, if no conservation program applied, that the facility would not “appreciably” reduce the likelihood of species survival or recovery. These standards relate to the protection of both wildlife and plant species listed as threatened or endangered.

Discussion. As noted in the discussion of the fish and wildlife habitat standard, the increased use of water while using distillate fuel is de minimus. Likewise, the discussion above shows that the air emission impacts are not significant. Therefore, the Council finds that use of distillate fuel will not significantly reduce the likelihood of plant and wildlife species survival or recovery.

Conclusion. The Council finds that CSCP will continue to meet the threatened and endangered species standard, OAR 345-22-070.

9. Scenic and Aesthetic Standard, OAR 345-22-080

The Council amended the scenic and aesthetic standard effective November 10, 1994. This standard requires that the Council find that “the design, construction, operation and retirement of the proposed facility, taking into account mitigation, is not likely to result in significant adverse impact to scenic and aesthetic values identified as significant or important in the applicable federal land management plans or the local land use plan for the site or its vicinity.” The revised standard changed the required finding for issuance of a site certificate from “will not result in significant adverse impact to scenic and aesthetic values...” to “is not likely to result in significant adverse impact to scenic and aesthetic values...”

Discussion. As in the original order, PGE examined the area within a thirty-mile radius of the site. This area extends through parts of Morrow, Umatilla and Gilliam counties. There are no scenic or aesthetic resources identified as significant or important from which the facility would be visible.

There is an incremental change in the view of the facility with the addition of the oil tanks. The site certificate (V.D.2) commits PGE to mitigate visual impacts by painting these new building structures in neutral shades. PGE has already minimized exterior lighting and has directed lights towards the facility site. PGE is also in the process of establishing landscape screening of native vegetation along portions of the perimeter of the power plant site, as required by the site certificate.

In addition, the incremental change in visible stack emissions due to distillate fuel use will be minimized since PGE will continue to comply with visible stack emission standard (20% Opacity) identified in condition 2 of the ACDP No. 25-0031 for the CSCP. PGE conducted a review of total annual emissions due to the addition of oil firing with respect to the DEQ and U.S. Environmental Protection Agency rules regarding
visibility impacts. The result of this review showed the incremental change due to fuel use at the facility was below the “Significant Emission Rate” for each pollutant, and therefore would result in insignificant impact on visibility. The Council finds that the proposed use of distillate fuel will not result in a significant adverse impact to any locally identified important or significant scenic and aesthetic values.

**Conclusion.** The Council finds that CSCP will continue to meet the scenic and aesthetic values standard, OAR 345-22-080.

10. **Historic, Cultural and Archeological Resources Standard, 345-22-090**

The Council amended the historic, cultural and archeological resources standard November 10, 1994. This standard requires that the Council find that “the design, construction, operation and retirement of the facility, taking into account mitigation, is not likely to result in significant adverse impacts to:

“(1) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;

“(2) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and,

“(3) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).”

The standard now requires the council to apply the standard to resources that are listed on or would likely be listed on the National Register of Historic Places, whereas previously the standard applied to listed sites or sites determined eligible for listing by the State Historic Preservation Office. The revised standard also changes the required finding for issuance of a site certificate from “will not result in significant adverse impacts...” to “is not likely to result in significant adverse impacts....”

**Discussion.** Burning oil will have no significant impact on the council’s historic, cultural and archeological resources standard. The Council finds that its findings with regard to historic, cultural, and archeological values on page 60 of the original order are still applicable and will not change.

**Conclusion.** The Council finds that CSCP will continue to meet the historic, cultural, and archeological resources standard, OAR 345-22-090.

11. **Recreation Standard, OAR 345-22-100**

The Council amended the recreation standard effective November 10, 1994. This standard requires that the Council find that "design, construction and operation of a facility, taking into account mitigation, is not likely to result in a significant adverse
impact to important recreational opportunities in the impact area. Factors which will be considered in judging the importance of a recreational opportunity include:

“(1) Any special designation or management of the location;
“(2) The degree of demand;
“(3) Uniqueness;
“(4) Outstanding or unusual qualities;
“(5) Availability or rareness; and
“(6) Irreplaceability or irretrievability of the opportunity.”

The revisions changed the required finding for issuance of a site certificate from “will not result in a significant adverse impact...” to “is not likely to result in a significant adverse impact....”

Discussion. Burning oil will have no significant impact on the Council’s recreation standard. The Council finds that its findings with regard to recreation values on page 62 of the original order are still applicable and will not change.

Conclusion. The Council finds that CSCP will continue to meet the recreation standard, OAR-345-22-100.

12. Socio-Economic Impacts Standard, OAR 345-22-110

The Council amended the socio-economic impacts standard effective November 10, 1994. This standard requires the Council to find “that the construction and operation of the facility, taking into account mitigation, is not likely to result in significant adverse impact to the ability of communities within the study area to provide the following governmental services: sewers and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.”

The revised standard changes the required finding for issuance of a site certificate from “will not result in significant adverse impact...” to “is not likely to result in significant adverse impact....” The revised standard also deleted libraries from the list of governmental services that should not be impacted, while adding housing and traffic safety.

Discussion. There will be no increase in employment beyond that analyzed in the original order, so there should be no additional impact on housing, police, health care, or schools. There will be additional truck traffic to the site to deliver distillate. The site is located about one-half mile from an intersection with Interstate-84. The area between the intersection and the site is industrial property. Distillate fuel deliveries will be intermittent. Once the tanks are filled, the deliveries should be infrequent. Given the
industrial uses of adjacent land, there should be no significant impact to the area from the
distillate fuel delivery trucks.

Because water injection into the turbine combustor is used to control NOx, there
will be an increase of water usage during the time the units are running on oil. Since the
water used for NOx control is evaporated during the process, no additional waste water is
generated from this activity. Water supply and waste water are discussed under the third
party services and permits section above. There should be no impact on storm water
drainage. There will be no additional solid waste produced as a result of using distillate
fuel for the turbines. Fire protection is discussed below.

The Council finds its finding relating to these issues found on pages 65 through
69 in the original order are still applicable.

**Conclusion.** The Council finds that CSCP continues to meet the socio-economic
impacts standard, OAR 345-22-110.

13. **Waste Minimization Standard, OAR 345-22-120**

The Council amended the waste minimization standard effective November 10,
1994. This standard requires an applicant, “to the extent reasonably practicable...[to]
minimize generation of solid waste and wastewater in the construction and operation of
the facility, and when solid waste or wastewater is generated, recycle and reuse such
wastes. [In addition,] to the extent reasonably practicable, the accumulation, storage,
disposal and transportation of waste generated by the construction and operation of the
facility must have minimal adverse impacts on surrounding and adjacent areas.”

The revisions changed the required finding for issuance of a site certificate from
“the applicant shall reduce generation of solid waste...” to “the applicant shall minimize
generation of solid waste....” The revisions also required that, to the extent reasonably
practicable, the accumulation, storage, disposal and transportation of facility generated
waste have minimal adverse impact on surrounding and adjacent areas.

**Discussion.** No solid waste is produced as a result of using distillate fuel for the
turbines. The slight additional amount of waste water is discussed under the third party
services and permits section above.

**Conclusion.** The Council finds that CSCP will continue to meet the waste
minimization standard, OAR 345-22-120.

14. **Retirement Standard, OAR 345-22-130**

The Council last revised the retirement standard effective November 16, 1995.
The standard requires the Council find that "the site, taking into account mitigation, can
be restored adequately to a useful, non-hazardous condition following facility
retirement."
Discussion. The original dollar estimate for retirement of the facility referenced in the original order anticipated the cost of retiring the oil tanks. The Council finds that its findings with respect to retirement on page 73 of the original order are still applicable and will not change.

Conclusion. The Council finds that CSCP will continue to meet the retirement standard, OAR 345-22-130.

Other Standards

15. Noise, OAR 340-35-035(1)(b)(B)
   The Council applies and enforces the DEQ’s noise standards for energy facilities under its jurisdiction. The standard for noise has not changed since the Council issued the original order.

   The DEQ noise standard, OAR 340-35-035 (1)(b)(B), has two elements. The first element requires that industrial noise sources not increase the noise level by more than 10 dBA above existing ambient noise levels. This maximum increase clause is known as the "ambient degradation rule." The second element limits the maximum noise levels that may be caused by the noise source, as measured at noise sensitive properties. The limits allow a moderately higher level of noise in the daytime than at night.

Discussion. There is no discernible difference in noise levels generated by combustion of liquid as opposed to gaseous fuel in a General Electric Frame 7FA combustion turbine. None of the other auxiliary equipment is expected to increase noise levels outside the turbine building during operation on oil. In fact, external noises may diminish somewhat because there will be no "gas flow noise" from the natural gas meter station outside the turbine building. The Council finds that its findings with respect to noise in the original order will not change negatively.

Conclusion. The Council finds that CSCP will continue to meet the noise standard, OAR 340-35-035(1)(b)(B).

Other State and Local Regulations Within the Council’s Jurisdiction

16. Oregon Department of Transportation (ODOT) - State Highways Rights-Of-Way

   Discussion. This is not affected by the amendment request.

17. Oregon Division of State Lands (DSL) - Fill and Removal of Waters of the State

   Discussion. This is not affected by the amendment request.
18. Oregon Department of Forestry (ODF) - Forest Lands, Practices

Discussion. This is not affected by the amendment request.

19. Oregon Department of Parks and Recreation (ODPR) - State Parks

Discussion. This is not affected by the amendment request.

Conclusion. The Council finds that CSCP will continue to meet the Council’s standards for other state and local regulations for ODOT, DSL, ODF and ODPR.

Federal Regulations Exempted from the Council’s Jurisdiction

Under ORS chapter 469, EFSC does not have jurisdiction for determining compliance with federal regulatory programs.

20. Spill Prevention Control and Countermeasures Plan. Under 40 CFR 112, federal regulations require PGE to prepare a Spill Prevention Control and Countermeasures Plan within six months of facility operations and fully implement it within one year.

Discussion. PGE is in the process of preparing its Spill Prevention Control and Countermeasure Plan. The Council is concerned with this plan to the extent that a potential oil spill might affect the Council’s standards for fish and wildlife and threatened and endangered species.

Condition # 3
PGE shall prepare a Spill Prevention Control and Countermeasures Plan meeting federal standards and fully implement it within one year of storing distillate fuel at CSCP.

21. Facility Response Plan. Federal regulations (40 CFR 112) require owners or operators of oil storage tanks having at least 1,000,000 gallons of capacity and meeting other conditions must submit a Federal Response Plan to the Regional Administrator of the U.S. Environmental Protection Agency prior to start of operations.

Discussion. When PGE builds its second storage tank, it will have storage capacity of more than 1,000,000 gallons of oil. Because of its proximity to the Columbia River, it meets additional federal criteria that require it to prepare a Federal Response Plan. Federal regulations require it to submit the Federal Response Plan prior to adding oil to the second tank. The Council is concerned with this plan to the extent that a potential oil spill might affect the Council’s standards for fish and wildlife and threatened and endangered species.
**Condition # 4**
PGE shall prepare a response plan meeting the requirements of a Federal Response Plan for CSCP suitable for submission to the U.S. Environmental Protection Agency Regional Administrator prior to beginning filling the second distillate oil storage tank.

**Conclusion.** The Council finds that the federal programs listed above are not within the its jurisdiction.

**State and Local Regulations Exempted from the Council's Jurisdiction**

Under ORS Chapter 469, EFSC does not have jurisdiction for determining compliance with federally-delegated regulatory programs or with state and local regulatory programs that address design-specific construction or operating standards and practices that do not relate to siting. In its original order, the Council concluded the following programs are not within its jurisdiction because they are federally delegated programs:

**22.** The **Air Contaminant Discharge Permit** program administered by DEQ, which includes the federally delegated new source review requirements of the Clean Air Act and the Prevention of Significant Deterioration program. This authority is in ORS Chapter 468A; OAR Chapter 340, Divisions 20, 21, 22, 25, and 31.

**Discussion.** PGE has a current application to amend its Air Contaminant Discharge Permit for CSCP before DEQ. When approved by DEQ, the amendment provides, assuming Council and other agencies’ approvals, that PGE may use distillate fuel at CSCP on a limited basis of less than 8,197,000 gallons annually, not exceeding 27,598 gallons per hour.

**23.** The **National Pollutant Discharge Elimination System** (NPDES), administered by DEQ - Water Quality Division, regulates and permits stormwater runoff from the proposed project site.

**Discussion.** This is not affected by the amendment request.

**24.** The **Underground Storage Tank** program regulates the design, operation, monitoring and removal of underground storage tanks that contain certain toxic and hazardous materials, including petroleum products, administered by DEQ, under ORS Chapter 466.; OAR Chapter 340, Division 150.

**Discussion.** This is not affected by the amendment request.
In its original order, the Council concluded that the following state regulatory programs are not within its jurisdiction because the programs address design-specific construction or operating standards and practices not related to siting:

25. The Oil Spill Contingency and Prevention Plan Program, administered by DEQ Water Quality Division under ORS 468B and OAR Chapter 340, Division 47, which regulates the transport, storage, handling and spill control and prevention of petroleum products under certain conditions.

Discussion. This is not affected by the amendment request.

26. Regulations of building, structure design and construction practices by the Building Code Agency under ORS Chapters 447, 455, 460, 476, 479, and 480; OAR Chapter 918, Divisions 225, 290, 301, 302, 400, 440, 460, 750, 770, and 780.

Discussion. Not affected.

27. Various programs addressing fire protection and fire safety and the storage, use, handling, and emergency response for hazardous materials and community right to know laws for hazardous materials, administered by the Oregon State Fire Marshal’s Office, under ORS Chapters 453, 476, and 480; OAR Chapter 837, Divisions 40 and 90.

Discussion. PGE designed and constructed the system with added fire protection necessary to meet the State Fire Marshall’s requirements, including a foam suppression that would be activated in the event of a major spill within the tanks’ bermed area. The City of Boardman Zoning Commissioner and Fire Chief have signed PGE’s application to install flammable/combustible liquid tanks and forwarded it to the State Fire Marshall. The State Fire Marshall will inform the City and PGE if believes that the Boardman Fire Department will require additional training.

28. The program addressing design and safety standards for natural gas pipelines and electric transmission lines administered by the Oregon Public Utilities Commission, Safety Section under ORS Chapter 757; OAR Chapter 860, Division 24.

Discussion. Not affected.

29. Regulations on the size and weight of truck loads on state and federal highways administered by the Oregon Department of Transportation under ORS Chapter 818; OAR Chapter 743, Division 82.

Discussion. Not affected.
30. The program regulating the possession, use and transfer of radioactive materials administered by the Oregon State Health Division (OSHD) under ORS Chapter 453; OAR Chapter 333, Divisions 100-119.

Discussion. Not affected.

31. Regulations of domestic water supply systems regarding potability administered by OSHD under ORS Chapter 448.

Discussion. Not affected.

Conclusion. The Council finds that the above-listed State and Local Regulations Exempted from the Council’s Jurisdiction remain exempted.

F. Conclusions

The Council finds that the actions in the PGE request are consistent with current Council rules, with other applicable statutes and rules, and with state-wide land use planning goals and would not cause a significant adverse impact to public health and safety or the environment. In preparing this final order, the Council limited its consideration to the effects that may be produced by the proposed change to the facility described in PGE’s request for amendment to burn distillate fuel as a back-up. In considering those effects, the Council reviewed state statutes, administrative rules, and local government ordinances.

Based on the above findings, the Council concludes that it will amend the site certificate for the Coyote Springs Cogeneration Project as PGE requests, subject to conditions.
FINAL ORDER

Based on the above findings of fact, discussions and conclusions of law, the Energy Facility Siting Council determines that it shall approve amendment request number two and that the chairperson of the Council shall execute the site certificate amendment in the form of the “Amendment Number Two to the Thermal Power Plant Site Certificate for the Coyote Springs Cogeneration Project,” which is attached to this order and which is incorporated by reference into this order.

Issued this seventh day of March, 1997.

Terry Edvalson, Chair
Energy Facility Siting Council

Notice of the Right to Appeal

You have the right to appeal this order to the Oregon Supreme Court pursuant to ORS 469.405. To appeal you must file a petition for judicial review with the Supreme Court within 60 days from the day this order was served on you. If this order was personally delivered to you, the date of service is the date you received this order. If this order was mailed to you, the date of service is the date it was mailed, not the day you received it. If you do not file a petition for judicial review within the 60-day time period, you lose your right to appeal.